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STOCKHOLM 60

February 20, 1964

Professor Joshua Lederberg
Stanford University School of Medicine
Department of Genetics
Stanford Medical Center
300 Pasteur Drive
Palo Alto
California - USA

Dear Professor Lederberg,

At a meeting on February 14th, COSPAR's Consultative Group on Potentially Harmful Effects of Space Experiments considered problems of extraterrestrial contamination, and decided to establish a Working Group on Standards for Space Probe Sterilization.

On behalf of the Consultative Group I have the honour of inviting you to become a member of this Working Group. It will consider data of the type enclosed ("Required Spacecraft Sterilization levels" by C. Sagan), sent under separate cover ("Views on Space Probe Sterilization", a background document for the Consultative Group) or provided in the course of the next few months. It will then meet in Florence at 9 A.M. on Thursday, May 14th, 1964 to answer the following questions:

1. Would presence of viable terrestrial organisms on Mars be injurious to scientific experiments or observations: a) interfere with the interpretation of life detection experiments b) alter the chemical environment of Mars due to microbial growth and metabolism c) is this an all-or-none problem or is interference a matter of the total number of contaminating microbes deposited.
2. What levels of contamination could be allowed in the case of a) Mars fly-by b) Mars lander.
3. What levels of contamination might be permitted in the case of other celestial bodies.
4. What steps should be taken a) to advance the techniques of space craft sterilization and the methods for establishing contamination levels (nomination of a committee of experts on sterilization and sterility testing !), b) to work out procedures for the handling of planetary samples returned to earth.

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Professor Lederberg cont.

5. How much information does an international scientific group need to decide whether there had been a breach of sterility or a breakdown of interplanetary quarantine.

The "verdict" of the Working Group - which will be composed of a small number of outstanding scientists - will certainly determine the course of all future international actions in this area, so we are very anxious to enlist your assistance.

Please let me have your decision as soon as possible as well as information whether your Academy takes care of your travel- and living expenses. Otherwise the Consultative Group will make a special reimbursement request to COSPAR on your behalf.

Sincerely yours,

C.-G. Hedén
Member COSPAR's Consultative Group
Res.Prof.Bact.Bioeng.

cc. V. Sarabhai
P. J. Beaulieu
W. W. Kellogg

Enclosure